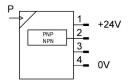
## Pressure sensor SPAN-B-B11R-M5FAL-PN-L1

**FESTO** 

Part number: 8114756





## **Data sheet**

| c UL us - Listed (OL)  CE marking (see declaration of conformity)  As per EU RMC directive As per EU RMS directive  To UK instructions for EMC To UK RoHS instructions  Note on materials  Relative pressure Measured variable  Relative pressure Method of measurement  Pressure measuring range initial value  -0.1 MPa -1 bar -14.5 psi  Pressure measuring range end value  1 MPa 10 bar 15 bar  Overload pressure  1.5 MPa 15 bar 217.5 psi  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas Information on operating and pilot media  Operation with oil lubrication possible  Temperature of medium  0 °C50 °C  Anbient temperature  0 °C50 °C  Accuracy in ± % FS  Repetition accuracy in ± % FS  Repetition accuracy in ± % FS  Eremperature co-efficient in ± % FS /K  Switching output  Pixel of the substitution of the switchable  Switching element function  Max. output current  80 mA  Short-circuit protection  Ves  | Feature                                      | Value  |
|--|--|--|
| As per EU RoHS directive  UKCA marking (see declaration of conformity)  To UK instructions for EMC To UK ROHS instructions  Note on materials  Relative pressure  Method of measurement  Pressure measuring range initial value  -0.1 MPa -1 bar -14.5 psi  Pressure measuring range end value  1 MPa 10 bar 145 psi  Max. overload pressure  1.5 MPa 15 bar  Overload pressure  1.5 MPa 15 bar 217.5 psi  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media  Operation with oil lubrication possible  Temperature of medium  O °C50 °C  Ambient temperature  Accuracy in ± % FS  Repetition accuracy in ± % FS  Temperature co-efficient in ± % FS/K  Switching output  PNP/NPN switchable  Switching element function  Max. output current  Measure  N/C contact/N/O contact switchable  Max. output current  So mA  Short-circuit protection  | Certification                                | the state of the s |
| Note on materials  Measured variable  Method of measurement  Pressure measuring range initial value  Pressure measuring range end value  1 MPa 1 0 bar 14.5 psi  1 MPa 1 0 bar 145 psi  Max. overload pressure  1.5 MPa 1 5 bar 217.5 psi  Overload pressure  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media  Derature of medium  Overload presture  Overload presture  Overload pressure  1.5 MPa 1 5 bar 217.5 psi  Operating medium  Operation with oil lubrication possible  Temperature of medium  O °C50 °C  Ambient temperature  O °C50 °C  Accuracy in ± % FS  Repetition accuracy in ± %FS  O.3 %FS  Temperature co-efficient in ± %FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator Switching element function  M/C contact/N/O contact switchable  Max. output current  So max  Short-circuit protection   | CE marking (see declaration of conformity)   |  |
| Measured variable       Relative pressure         Method of measurement       Piezoresistive pressure sensor         Pressure measuring range initial value       -0.1 MPa - 1 bar - 1 to ar 1 to par 1   | UKCA marking (see declaration of conformity) |  |
| Method of measurement  Pressure measuring range initial value  Pressure measuring range initial value  Pressure measuring range end value  I MPa 10 bar 14.5 psi  Max. overload pressure  1.5 MPa 15 bar 217.5 psi  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media  Prespectation accuracy in ± % FS  Repetition accuracy in ± % FS  Switching output  Switching function  Mic contact/N/O contact switchable  Max. output current  Measurement  Piezoresistive pressure sensor  -0.1 MPa -1 bar -1 ba | Note on materials                            | RoHS-compliant   |
| Pressure measuring range initial value -0.1 MPa -1 bar -14.5 psi  Pressure measuring range end value  I MPa 10 bar 145 psi  Max. overload pressure  15 bar Overload pressure  1.5 MPa 15 bar 217.5 psi  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media Operation with oil lubrication possible  Temperature of medium O°50 °C  Ambient temperature O°50 °C  Accuracy in ± % FS Repetition accuracy in ± %FS/K Switching output Switching function Window comparator Threshold value comparator Switching lement function Max. output current So mA Short-circuit protection  Ves  | Measured variable                            | Relative pressure  |
| Pressure measuring range end value  Pressure measuring range end value  In Dar 145 psi  Max. overload pressure  15 bar  Overload pressure  1.5 MPa 15 bar 15 bar 217.5 psi  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media  Operation with oil lubrication possible  Temperature of medium  O °C50 °C  Ambient temperature  O °C50 °C  Accuracy in ± % FS  Repetition accuracy in ± %FS  Repetition accuracy in ± %FS  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator  Threshold value comparator  Switching element function  Max. output current  80 mA  Short-circuit protection  yes  | Method of measurement                        | Piezoresistive pressure sensor   |
| 10 bar 145 psi  Max. overload pressure 15 bar  Overload pressure 1.5 MPa 15 bar 217.5 psi  Operating medium Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media Operation with oil lubrication possible  Temperature of medium O° C50 °C  Ambient temperature O° C50 °C  Accuracy in ± % FS 1.5 %FS  Repetition accuracy in ± %FS O.3 %FS  Temperature co-efficient in ± %FS/K  Switching output PNP/NPN switchable  Switching function Window comparator Threshold value comparator Switching element function M/C contact/N/O contact switchable  Max. output current 80 mA  Short-circuit protection  yes   | Pressure measuring range initial value       | -1 bar   |
| Overload pressure  1.5 MPa 15 bar 217.5 psi  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media  Operation with oil lubrication possible  Temperature of medium  O°C50°C  Ambient temperature  O°C50°C  Accuracy in ± % FS  1.5 % FS  Repetition accuracy in ± % FS  Neperature co-efficient in ± % FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator  Switching element function  M/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection  | Pressure measuring range end value           | 10 bar   |
| 15 bar 217.5 psi  Operating medium  Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas  Information on operating and pilot media  Operation with oil lubrication possible  Temperature of medium  O°C50°C  Ambient temperature O°C50°C  Accuracy in ± % FS  Repetition accuracy in ± %FS  Temperature co-efficient in ± %FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator  Switching element function  M/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection   | Max. overload pressure                       | 15 bar   |
| Inert gas  Information on operating and pilot media  Depration with oil lubrication possible  Temperature of medium  O °C50 °C  Ambient temperature  O °C50 °C  Accuracy in ± % FS  I.5 %FS  Repetition accuracy in ± %FS  Temperature co-efficient in ± %FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator Switching element function  M/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection  yes   | Overload pressure                            | 15 bar   |
| Temperature of medium  O °C50 °C  Ambient temperature  O °C50 °C  Accuracy in ± % FS  Repetition accuracy in ± %FS  Repetition accuracy in ± %FS  Temperature co-efficient in ± %FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator Switching element function  M/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection  yes  | Operating medium                             |  |
| Ambient temperature 0 °C50 °C  Accuracy in ± % FS  Repetition accuracy in ± % FS  Repetition accuracy in ± % FS  Temperature co-efficient in ± % FS / K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator Switching element function  Mx. output current  80 mA  Short-circuit protection  yes   | Information on operating and pilot media     | Operation with oil lubrication possible  |
| Accuracy in ± % FS  Repetition accuracy in ± %FS  O.3 %FS  Temperature co-efficient in ± %FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator  Switching element function  N/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection  yes  | Temperature of medium                        | 0 ℃50 ℃  |
| Repetition accuracy in ± %FS  Temperature co-efficient in ± %FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator  Switching element function  N/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection  yes   | Ambient temperature                          | 0 ℃50 ℃  |
| Temperature co-efficient in ± %FS/K  Switching output  PNP/NPN switchable  Switching function  Window comparator Threshold value comparator Switching element function  N/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection  yes  | Accuracy in ± % FS                           | 1.5 %FS  |
| Switching output  Switching function  Window comparator Threshold value comparator Switching element function  N/C contact/N/O contact switchable  Max. output current  80 mA  Short-circuit protection  yes   | Repetition accuracy in ± %FS                 | 0.3 %FS  |
| Switching function  Window comparator Threshold value comparator Switching element function  N/C contact/N/O contact switchable  Max. output current  80 mA Short-circuit protection  yes  | Temperature co-efficient in ± %FS/K          | 0.1 %FS/K  |
| Threshold value comparator  Switching element function  Max. output current  Short-circuit protection  N/C contact/N/O contact switchable  yes   | Switching output                             | PNP/NPN switchable   |
| Max. output current 80 mA Short-circuit protection yes   | Switching function                           |  |
| Short-circuit protection yes   | Switching element function                   | N/C contact/N/O contact switchable   |
| · · · · · · · · · · · · · · · · · · ·  | Max. output current                          | 80 mA  |
| DC operating voltage range 10.8 V30 V  | Short-circuit protection                     | yes  |
|  | DC operating voltage range                   | 10.8 V30 V   |

| Feature   | Value  |
|---|--|
| Reverse polarity protection                               | for all electrical connections                                     |
| Electrical connection 1, connection type                  | Plug   |
| Electrical connection 1, connection technology            | Connection diagram L1J   |
| Electrical connection 1, number of pins/wires             | 4  |
| Type of mounting  | Front panel mounting<br>With wall/surface bracket                  |
| Mounting position   | Any  |
| Pneumatic connection                                      | Internal thread M5   |
| Product weight  | 21 g   |
| Housing material  | PA-reinforced  |
| Materials in contact with the media                       | Wrought aluminum alloy, anodized FPM PA-reinforced                 |
| Display type  | Illuminated LCD  |
| Displayable unit(s)                                       | MPa bar inHg kPa mmHg psi  |
| Setting options   | Teach-in<br>Via display and pushbuttons                            |
| Protection against tampering                              | PIN code   |
| Setting range threshold value                             | 0 %100 %   |
| Setting range hysteresis                                  | 0 %90 %  |
| Degree of protection                                      | IP40   |
| Corrosion resistance class (CRC)                          | 2 - Moderate corrosion stress                                      |
| LABS (PWIS) conformity                                    | VDMA24364-B1/B2-L  |
| Suitability for the production of Li-ion batteries        | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 4 according to ISO 14644-1                                   |